



Commonwealth of Massachusetts  
Executive Office of Energy & Environmental Affairs

## Department of Environmental Protection

Northeast Regional Office • 205B Lowell Street, Wilmington MA 01887 • 978-694-3200

DEVAL L. PATRICK  
Governor

TIMOTHY P. MURRAY  
Lieutenant Governor

RICHARD K. SULLIVAN JR.  
Secretary

KENNETH L. KIMMELL  
Commissioner

### FINAL AIR QUALITY OPERATING PERMIT RENEWAL

Issued by the Massachusetts Department of Environmental Protection ("Department" or "MassDEP") pursuant to its authority under M.G.L. c. 111, §142B and §142D, 310 CMR 7.00 et seq., and in accordance with the provisions of 310 CMR 7.00: Appendix C

**ISSUED TO ["the Permittee"]**

GenOn Kendall LLC  
265 First Street  
Cambridge, Massachusetts 02142

**INFORMATION RELIED UPON:**

Application No. MBR-95-OPP-022R  
Transmittal No. X227703

**FACILITY LOCATION:**

GenOn Kendall LLC  
265 First Street  
Cambridge, Massachusetts 02142

**FACILITY IDENTIFYING NUMBERS:**

AQ ID: 1190093  
FMF FAC NO.: 315603  
FMF RO NO.: 317770

**NATURE OF BUSINESS:**

Electrical Power Generation

Standard Industrial Classification (SIC): 4911  
North American Industrial Classification  
System (NAICS): 221112

**RESPONSIBLE OFFICIAL:**

Name: Mr. Leo Rajter  
Title: Vice President  
Mid-Atlantic & Northeast Gas Plant  
Operations

**FACILITY CONTACT PERSON:**

Name: Shawn Konary  
Title: Director, Environmental Policy and Regulatory Affairs  
Phone: 617.529.3874  
Fax: 678-579-5994  
Email: shawn.konary@genon.com

This Operating Permit shall expire on Jan. 8, 2018.

For the Department of Environmental Protection

\_\_\_\_\_  
James E. Belsky  
Permit Chief  
Bureau of Waste Prevention

Jan. 8, 2013  
\_\_\_\_\_  
Date

## TABLE OF CONTENTS

Section	Special Conditions for Operating Permit	Page No.
1	Permitted Activities and Description of Facility and Operations	3
2	Emission Unit Identification - Table 1	4,5
3	Identification of Exempt Activities - Table 2	5
4	Applicable Requirements	
	A. Operational and/or Production Emission Limits and Restrictions - Table 3	5-11
	B. Compliance Demonstration	
	- Monitoring and Testing Requirements - Table 4	11-13
	- Record Keeping Requirements - Table 5	14-15
	- Reporting Requirements - Table 6	15-17
	C. General Applicable Requirements	17
	D. Requirements Not Currently Applicable - Table 7	17
5	Special Terms and Conditions – Table 8	17-19
6	Alternative Operating Scenarios – Table 9	19
7	Emissions Trading – Table 10	19, 20
8	Compliance Schedule	20
Section	General Conditions for Operating Permit	Page No.
9	Fees	21
10	Compliance Certification	21,22
11	Noncompliance	22
12	Permit Shield	22
13	Enforcement	22
14	Permit Term	22, 23
15	Permit Renewal	23
16	Reopening for Cause	23
17	Duty to Provide Information	23
18	Duty to Supplement	23
19	Transfer of Ownership or Operation	23
20	Property Rights	24
21	Inspection and Entry	24
22	Permit Availability	24
23	Severability Clause	24
24	Emergency Conditions	24, 25
25	Permit Deviation	25
26	Operational Flexibility	26
27	Modifications	26
28	Ozone Depleting Substances	26, 27
29	Prevention of Accidental Releases	27
Section	Appeal Conditions for Operating Permit	28

## **SPECIAL CONDITIONS FOR OPERATING PERMIT**

### **1. PERMITTED ACTIVITIES**

In accordance with the provisions of 310 CMR 7.00:Appendix C and applicable rules and regulations, the Permittee is authorized to operate air emission units as shown in Table 1 and exempt, and insignificant activities as described in 310 CMR 7.00:Appendix C(5)(h) and (i). The units described in Table 1 are subject to the terms and conditions shown in Sections 4, 5, and 6 and to other terms and conditions as specified in this Permit. Emissions from the exempt activities shall be included in the total facility emissions for the emission-based portion of the fee calculation described in 310 CMR 4.00 and this Permit.

#### **A. DESCRIPTION OF FACILITY AND OPERATIONS**

The Kendall Cogeneration Station ("Kendall Station") is located at 265 First Street in Cambridge, Massachusetts and began service in 1946 and was acquired by the Permittee in 2010. Two large steam boilers, designated Emission Unit 2 (EU2) and EU3, generate steam that is used in one of the three steam turbines to produce electricity. The combined cycle turbine cogeneration unit, designated EU4, is capable of producing electricity and steam. As part of the electrical generating system, Kendall Station has four hydrogen cooling systems. Each of the three steam turbine generators and a gas combustion generator is equipped with its separate hydrogen cooling system. The Permittee operates a combustion gas turbine, designated EU-S6, for use as a low mass emitter ("LME") unit during the ozone season under the Federal EPA Regulations at 40 CFR Part 75. The total plant's nominal electrical rated output is 267 megawatts (MW). Kendall Station also houses several solvent parts washers that are subject to Regulation 310 CMR 7.18(8) – Solvent Metal Degreasing. Each applicable emission unit, with the designation "EU" is identified in Table 1 below.

The Permittee operates Kendall Station in a manner to generate a potential to emit greater than 50 tons per year of oxides of nitrogen (NOx). As such, EU2, EU3 and EU-S6 at Kendall Station are subject to NOx Reasonably Available Control Technology (RACT) at 310 CMR 7.19. MassDEP issued a NOx RACT Emission Control Plan (ECP) Approval to the Permittee on March 30, 1998. The Permittee's NOx RACT ECP Approval was modified and updated on May 5, 2009. EU2 and EU3 are subject to NOx RACT for large boilers, under 310 CMR 7.19(4)(a)3.b, and shall comply with a NOx emission limit of 0.28 pounds per million British thermal units and a carbon monoxide (CO) emission limit of 200 parts per million (ppm), corrected to 3 percent oxygen. EU-S6 is subject to NOx RACT for Stationary Combustion Turbines under 310 CMR 7.19(7)(a)2 and shall comply with NOx and CO emission limits both at 100 ppm, corrected to 15 percent oxygen. In addition, during low load operation of less than 10 MW for "black start use" or testing, EU-S6 shall comply with a CO emission limit of 500 ppm corrected to 15 percent oxygen.

EU2 and EU3 are subject to the Maximum Available Control Technology (MACT) Regulations for Utility Boilers pursuant to 40 CFR Part 63, Subpart UUUUU.

On September 10, 2001, MassDEP issued the PSD permit, Application No. MBR-00-COM-029 for EU4 to the Permittee, because EU4 is one of the 28 designated PSD stationary source categories, namely a fossil fuel fired steam electric plant of more than 250 million Btu/hr heat input.

EU4, the cogeneration unit, uses natural gas as the primary fuel source that is converted to both electrical and useful thermal energy in the form of steam. This conversion process utilizes fuel energy efficiently. Natural gas fuels a gas combustion turbine that spins a generator that produces approximately 180 MW of electricity. The waste heat from the combustion turbine is sent to a Heat Recovery Steam Generator (HRSG) where steam is produced. Steam from the HRSG is sent to three steam turbines onsite that generate approximately 64 MW of electricity and process steam. Process steam that is produced as a byproduct of generating electricity in the steam turbines becomes a thermal energy source to hundreds of commercial entities throughout Cambridge and Boston.

# GenOn Kendall/Kendall Square - Proposed Operating Permit Renewal

Transmittal No. X227703

Page 4 of 28

The emission limits for EU4 are contained in Final Approval Application No. MBR-00-COM-029, dated December 1, 2003. Revisions to this Approval are contained in the unit's Test Approval, dated November 14, 2007, and a Modified Test Approval, dated August 7, 2009. EU4's air emission limits for the following pollutants are listed below: The NO<sub>x</sub> emission limit is 2.0 ppm while combusting natural gas and 6.0 ppm while combusting distillate oil. The CO emission limit is 2.0 ppm while combusting natural gas and 4.7 ppm while combusting distillate oil. The NH<sub>3</sub> emissions limit is 2.0 ppm while combusting either natural gas or distillate oil. The remaining emission limits and startup/shutdown limits are found in Table 3 below. All emission limits above are in ppm by volume at 15 percent oxygen.

EU4 is subject to the Federal New Source Performance Standards (NSPS) Regulations for Combustion Turbines pursuant to 40 CFR Part 60, Subpart GG. EU4's HRSG, designated EU4/HRSG-1, is subject to the NSPS Regulations for Electric Utility Steam Generating Units, pursuant to 40 CFR Part 60, Subpart Da.

EU-S6 is subject to the Federal Compliance Assurance Monitoring (CAM) requirements, 40 CFR Part 64. See Table 4 – Monitoring and Testing Requirements, Item No. 24. EU4 is exempt from the Compliance Assurance Monitoring (CAM) Regulations under 40 CFR Part 64.2(b)(vi) since the facility is equipped with a Continuous Emissions Monitoring System (CEMS) for NO<sub>x</sub>, CO and NH<sub>3</sub>. The remaining EUs are not subject to the CAM requirements.

EU7 which are three parts washers are subject to the MassDEP Regulation 310 CMR 7.03(8) under Plan Approval Exemption and 310 CMR 7.18(8)a under Solvent Metal Degreasing. The solvent consumption rate for each parts washers is required to be less than 100 gallons per month to fulfill the Plan Approval Exemption. In addition, the solvent used is required to meet a vapor pressure that does not exceed 1.0 mm Hg measured at 20°C.

EU8 is an emergency diesel fire pump that is subject to the Federal Reciprocating Internal Combustion Engine (RICE) Regulation - 40 CFR Part 63 Subpart ZZZZ for a major source under Maximum Available Control Technology (MACT).

EU2, EU3, and EU4 are subject to the requirements of Phase II of the Federal Acid Rain Program as defined by EPA in 40 CFR Part 72. Pursuant to 40 CFR Parts 72.71 and 72.73, and 310 CMR 7.00: Appendix C(3)(n), MassDEP is the permitting authority for Phase II Acid Rain Permits. MassDEP issued an initial Phase II Acid Permit for the facility on December 22, 1997 and renewed said permit on January 28, 2003. MassDEP is renewing this permit herein. See Section 5 - Special Terms and Conditions under the Federal Acid Rain Program.

The Permittee is subject to and shall comply with the Massachusetts Clean Air Interstate Rule (CAIR), 310 CMR 7.32 and has submitted a CAIR emission control application pursuant to 310 CMR 7.32(3) for the EUs at Kendall Station.

Permittee's facility-wide hazardous air pollutants (HAP) emissions are above the major thresholds for an individual HAP of 10 tons per year and the combination of HAPs of 25 tons per year. As such, EU8 is subject the RICE Regulation for the major source category.

Tables 3, 4, 5, 6, and 8 of this Operating Permit contain the air quality requirements and regulations to which the Permittee's Kendall Station is subject. Table 7 includes the non-applicability determinations.

## 2. EMISSION UNIT IDENTIFICATION

The following emission units (Table 1) are subject to and regulated by this Operating Permit:

Table 1			
Emission Unit (EU#)	Description of Emission Unit	EU Design Capacity	Pollution Control Device (PCD)
EU2	Babcock & Wilcox Boiler No.2	273 MMBtu per hour	None
EU3	Babcock & Wilcox Boiler No.3	409 MMBtu per hour	

<b>Table 1</b>			
<b>Emission Unit (EU#)</b>	<b>Description of Emission Unit</b>	<b>EU Design Capacity</b>	<b>Pollution Control Device (PCD)</b>
EU4	Combined Cycle Combustion Turbine: General Electric 7241 FA	2,372 MMBtu per hour (~180 MW)	Dry Low NOx combustor (PCD-1)
	Supplemental duct burners for Heat Recovery Steam Generator (HRSG)	350 MMBtu per hour (~64 MW)	HRSG houses a CO oxidation catalyst (PCD-2), NH <sub>3</sub> injection grid (AIG), and SCR catalyst (PCD-3)
EU-S6	Turbo Power Marine Combustion Turbine No.1	308 MMBtu per hour (~23 MW)	Water Injection System (PCD-4)
EU7	Parts Washers	Solvent consumption <100 gallons per month	None
EU8	Perkins Emergency Diesel Fire Pump	1.0 MMBtu per hour	None

Table 1 Footnote:

MMBtu = million British thermal units, MW = megawatts

SCR = selective catalyst reduction

### **3. IDENTIFICATION OF EXEMPT ACTIVITIES**

The following are considered exempt activities in accordance with the criteria contained in 310 CMR 7.00: Appendix C(5)(h):

<b>Table 2</b>	
<b>Description of Current Exempt Activities</b>	<b>Reason</b>
The list of current exempt activities is contained in the Operating Permit application and shall be updated by the Permittee to reflect changes at the facility over the permit term. An up-to-date copy of exempt activities list shall be kept on-site at the facility and a copy shall be submitted to the MassDEP's Regional Office. Emissions from these activities shall be reported on the annual emissions statement pursuant to 310 CMR 7.12.	310 CMR 7.00 Appendix C(5)(h)

### **4. APPLICABLE REQUIREMENTS**

#### **A. OPERATIONAL AND/OR PRODUCTION EMISSION LIMITS AND RESTRICTIONS**

The Permittee is subject to the limits/restrictions contained in Table 3 below:

<b>Table 3</b>					
<b>EU#</b>	<b>Fuel/Raw Material</b>	<b>Pollutant</b>	<b>Operational and/or Production Limits</b>	<b>Emissions Limits/Standards</b>	<b>Applicable Regulation and/or Approval No</b>
EU2, EU3, EU4, EU-S6	Natural gas and No. 2 or No. 6 fuel Oil ≤0.30% S by wt. for EU2 and EU3 only. No. 2 oil for EU4 and EU-S6 only.	CO <sub>2</sub>		Hold CO <sub>2</sub> allowances available for compliance (See Footnotes A and B)	Emission Control Plan (ECP) Transmittal No. X223523, 310 CMR 7.70(1)(e)3.a.
				CO <sub>2</sub> allowance transfers	EC P Transmittal

## GenOn Kendall/Kendall Square - Proposed Operating Permit Renewal

Transmittal No. X227703

Page 6 of 28

Table 3					
EU#	Fuel/Raw Material	Pollutant	Operational and/or Production Limits	Emissions Limits/Standards	Applicable Regulation and/or Approval No
					No. X223523, 310 CMR 7.70(7)
EU2, EU3	No. 2 or No.6 Fuel Oil $\leq 0.30\%$ S by wt. percent or natural gas	PM		$\leq 0.12$ lb/MMBtu	310 CMR 7.02(8)
		NO <sub>x</sub>		$\leq 0.28$ lb/MMBtu <sup>2</sup>	310 CMR 7.19(4)(a)3.b. MBR-94-COM-019
		CO		$\leq 200$ ppmvd@ 3% O <sub>2</sub> <sup>2</sup> 0.16 lb/MMBtu (oil) <sup>2</sup> 0.15 lb/MMBtu (gas) <sup>2</sup>	310 CMR 7.19(4)(f) MBR-94-COM-019
		S in Fuel		$\leq 0.3\%$ sulfur	MBR-94-COM-019
EU-S6	No.2 Fuel Oil $\leq 0.05\%$ S by wt.	NO <sub>x</sub>	NA	$\leq 100$ ppmvd@ 15% O <sub>2</sub> <sup>1</sup>	310 CMR 7.19(7)(a)2.b. MBR-94-COM-019
			Water injection versus fuel flow rates for loads greater than 10 MW Water to fuel ratio calculated over three hour averaging period	See Table 4, Item No.24 <sub>2</sub>	40 CFR 64 Compliance Assurance Monitoring
		CO		$\leq 100$ ppmvd@ 15% O <sub>2</sub> <sup>1</sup>	310 CMR 7.19(7)(a)2.c. MBR-94-COM-019
		S in Fuel		$\leq 0.05\%$ sulfur	MBR-94-COM-019
		CO	Low Load Operation at less than 10 MW	$\leq 500$ ppmvd@ 15% O <sub>2</sub> <sup>1</sup>	310 CMR 7.19(7)(a)4. MBR-94-COM-019
EU2, EU3, EU-S6	Natural gas, No. 2 or No. 6 fuel Oil $\leq 0.30\%$ S by wt. for EU2 and EU3. No.2 Fuel Oil $\leq 0.05\%$ S by wt. for EU-S6.	Opacity		<20%, except 20% to <40% for $\leq 2$ minutes during any 1 hour	310 CMR 7.06(1)(b)

## GenOn Kendall/Kendall Square - Proposed Operating Permit Renewal

Transmittal No. X227703

Page 7 of 28

Table 3					
EU#	Fuel/Raw Material	Pollutant	Operational and/or Production Limits	Emissions Limits/Standards	Applicable Regulation and/or Approval No
EU4 <sup>8</sup>	Natural gas (primary)	NOx, VOC, CO NH <sub>3</sub> , PM	Startup, shutdown, and fuel transition periods shall have a maximum duration of 4 hours. Partial hours are excluded.		MBR-00-COM-029
	0.8 grains S per 100 cubic feet	NOx	Maximum firing rate is 18,912 million cubic feet per 12 month rolling period when operating at 100% load with duct firing at average temperature of 50° F ambient.. Operate at 50% load or greater excluding startup, shutdown and malfunction.	2.0 ppmvd @ 15% O <sub>2</sub> <sup>1,2</sup> 0.0074 lb/MMBtu <sup>2</sup> 18.4 lb/hr	MBR-00-COM-029 <sup>13</sup>
		NOx startup limits		100 ppmvd @ 15% O <sub>2</sub> <sup>1,2</sup> 0.37 lb/MMBtu <sup>2</sup> 400 lb/hr	MBR-00-COM-029
		CO		2.0 ppmvd @ 15% O <sub>2</sub> <sup>1,2</sup> 0.0045 lb/MMBtu <sup>2</sup> 11.2 lb/hr	MBR-00-COM-029
		CO Startup Limits first hour		500 ppmvd @ 15% O <sub>2</sub> 1.12 lb/MMBtu 800 lb/hr	MBR-00-COM-029
		CO Startup Limits after first hour and up to four hours		100 ppmvd @ 15% O <sub>2</sub> 0.224 lb/MMBtu 400 lb/hr	MBR-00-COM-029
		SO <sub>2</sub>		0.0022 lb/MMBtu 5.7 lb/hr	MBR-00-COM-029
		PM/PM10 Including startups/shutdowns		0.011 lb/MMBtu 17.0 lb/hr	MBR-00-COM-029
		VOC (duct unfired)		1.0 ppmvd @ 15% O <sub>2</sub> 0.0013 lb/MMBtu 2.8 lb/hr	MBR-00-COM-029
		VOC (duct fired)		1.5 ppmvd @ 15% O <sub>2</sub> 0.002 lb/MMBtu 5.0 lb/hr	
		VOC Startup Limits		10.0 ppmvd @ 15% O <sub>2</sub> 0.013 lb/MMBtu 16.6 lb/hr	MBR-00-COM-029
		NH <sub>3</sub>		2.0 ppmvd @ 15% O <sub>2</sub> <sup>1,2</sup> 0.0027 lb/MMBtu 6.7 lb/hr	MBR-00-COM-029
EU4 <sup>8</sup>	No. 2 Fuel Oil 0.05% S by wt.	NOx	≤ 12,198,857 gallons per 12 month rolling period (equal to 720 hours per year) Operate at 50% load or greater excluding startup, shutdown and malfunction.	6.0 ppmvd @ 15% O <sub>2</sub> <sup>1,2</sup> 0.023 lb/MMBtu 54.6 lb/hr	MBR-00-COM-029 <sup>13</sup>

## GenOn Kendall/Kendall Square - Proposed Operating Permit Renewal

Transmittal No. X227703

Page 8 of 28

Table 3					
EU#	Fuel/Raw Material	Pollutant	Operational and/or Production Limits	Emissions Limits/Standards	Applicable Regulation and/or Approval No
EU4	No. 2 Fuel Oil 0.05% S by wt.	NOx Startup Limit		250 ppmvd @ 15% O <sub>2</sub> <sup>1,2</sup> 1.0 lb/MMBtu 914 lb/hr	MBR-00-COM-029
		CO		4.7 ppmvd @ 15% O <sub>2</sub> <sup>1,2</sup> 0.011 lb/MMBtu 26.1 lb/hr	MBR-00-COM-029
		CO Startup Limit		1000 ppmvd @ 15% O <sub>2</sub> <sup>1,2</sup> 2.6 lb/MMBtu 1100 lb/hr	MBR-00-COM-029
		PM/PM10		0.034 lb/MMBtu 50 lb/hr	MBR-00-COM-029
		PM/PM10 startup limit		0.034 lb/MMBtu 33 lb/hr	MBR-00-COM-029
		VOC (duct fired)		2.5 ppmvd @ 15% O <sub>2</sub> 0.003 lb/MMBtu 8.2 lb/hr	MBR-00-COM-029
		VOC (unfired) <sup>9</sup>		1.5 ppmvd @ 15% O <sub>2</sub> 0.002 lb/MMBtu 4.7 lb/hr	
		VOC Startup Limit		10.0 ppmvd @ 15% O <sub>2</sub> 0.0135 lb/MMBtu 13 lb/hr	MBR-00-COM-029
		NH <sub>3</sub>		2.0 ppmvd @ 15% O <sub>2</sub> <sup>1</sup> 0.0028 lb/MMBtu 6.9 lb/hr	MBR-00-COM-029
		SO <sub>2</sub>		0.050 lb/MMBtu 124 lbs/hr	MBR-00-COM-029
	Natural gas and No. 2 fuel oil at 0.05% S by wt.	Opacity		≤10% <sup>5</sup> , except >10 to ≤20% during startups and shutdowns based on a six-minute average	MBR-00-COM-029
		NOx		93.6 TPY <sup>9</sup>	MBR-00-COM-029
		CO		54.4 TPY <sup>9</sup>	MBR-00-COM-029
		VOC		22.6 TPY <sup>9</sup>	MBR-00-COM-029



GenOn Kendall/Kendall Square - Proposed Operating Permit Renewal

Transmittal No. X227703

Page 9 of 28

Table 3					
EU#	Fuel/Raw Material	Pollutant	Operational and/or Production Limits	Emissions Limits/Standards	Applicable Regulation and/or Approval No
EU4		SO <sub>2</sub>		64.7 TPY <sup>9</sup>	MBR-00-COM-029
		PM/PM <sub>10</sub>		86.3 TPY <sup>9</sup>	MBR-00-COM-029
		NH <sub>3</sub>		29.4 TPY <sup>9</sup>	MBR-00-COM-029
		NO <sub>x</sub>		75 ppmvd	40 CFR 60.332(a)(1)
		SO <sub>2</sub>		0.015 percent by volume	40 CFR 60.333
EU7	N/A	VOC	Solvent usage less than 100 gallons per month.	Maximum solvent vapor pressure is 1.0 mm Hg at 20°C.	310 CMR 7.03(8) 310 CMR 7.18(8)a
EU8	ULSD ≤0.0015 % S by wt. starting 5/3/2013		Maintenance and testing is limited to 300 hours per year. See Monitoring and Record Keeping Tables.	None	40 CFR Part 63 Subpart ZZZZ
Facility-wide	All Fuels	SO <sub>2</sub>	The SO <sub>2</sub> emission rate shall not exceed 379.6 lb/ hr for the following time periods in a given day: 6:00 AM to 10:00 AM and 3:00 PM to 9:00 PM. For the remaining 14 hours of the day the SO <sub>2</sub> emission rate shall not exceed 225.4 lb/ hr as required by ACO-NE-94-7001.	See Operational Limits	ACO-NE-94-7001
		NO <sub>x</sub>	The facility-wide long term emission limit is restricted	389.2 TPY <sup>9</sup>	MBR-00-COM-029
		VOC	The facility-wide long term emission limit is restricted	32.3 TPY <sup>9</sup>	MBR-00-COM-029
		Smoke		<No.1 of Chart <sup>3</sup> , except No.1 to <No.2 of Chart for ≤6 minutes during any 1 hour	310 CMR 7.06(1)(a)
		Greenhouse Gases <sup>14</sup>	N/A	N/A	310 CMR 7.71(state only)
		SO <sub>2</sub>		<1.2 lb/MMBtu <sup>12</sup>	310 CMR 7.22
		CO <sub>2</sub>	See Special Terms and Conditions Section 5.		310 CMR 7.70

NO<sub>x</sub> = Nitrogen Oxides

CO = Carbon Monoxide

VOC = Volatile Organic Compounds

SO<sub>2</sub> = Sulfur Dioxide

PM = Total Particulate Matter

PM<sub>10</sub> = Particulate Matter less than or equal to 10 microns in diameter

PM<sub>2.5</sub> = Particulate Matter less than or equal to 2.5 microns in diameter

NH<sub>3</sub> = Ammonia

Opacity = exclusive of uncombined water vapor?

# GenOn Kendall/Kendall Square - Proposed Operating Permit Renewal

Transmittal No. X227703

Page 10 of 28

lbs/MMBtu = pounds per Million British thermal units

lbs/hr = pounds per hour

ppmvd @ 3% O<sub>2</sub> = parts per million by dry volume, corrected to 3 percent oxygen

@ 15% O<sub>2</sub> = at 15 percent oxygen

< = less than

≤ = less than or equal to

% = percent

wt. = weight

## Table 3 Footnotes:

- A Compliance with CO<sub>2</sub> allowances shall be based on the control period. The control period is a three-calendar-year time period, unless extended to four years upon occurrence of a Stage two trigger event. Control period and Stage two trigger event are defined at 310 CMR 7.70(1)(b) – “state only”.
- B Hold CO<sub>2</sub> allowances available for compliance deductions under 310 CMR 7.70(6)(e), as of the CO<sub>2</sub> allowance transfer deadline, in the source’s compliance account in an amount not less than the total CO<sub>2</sub> emissions for the control period from all CO<sub>2</sub> budget units at the source, as determined in accordance with 310 CMR 7.70(6) and (8).
- 1 Compliance with emission limit(s)/standard(s) shall be based on one-hour block averaging time.
- 2 Compliance with emission limit(s)/standard(s) shall be based on calendar day average for Units EU2 and EU3 and based on a one-hour average for EU4 from the CEMS.
- 3 Chart means the Ringelmann Scale for grading the density of smoke, as published by the United States Bureau of Mines and as referred to in the Bureau of Mines Information Circular No. 8333, or any smoke inspection guide approved by the MassDEP.
- 4 Compliance shall be determined by 40 CFR 60 Appendix A Method 9.
- 5 Compliance shall be determined by COMS pursuant to 40 CFR 60 Appendix B, Performance Specification 1. Compliance with the opacity standard shall be based on a six minute averaging time.
- 6 Duct burners providing supplemental heat for the Heat Recovery Steam Generator serving combined cycle turbine EU4 are subject to 40 CFR Part 60 subpart Da as a result of the HRSG maximum firing rate of 350 MMBtu/hr. Emission levels are expected to fall well below the applicable subpart Da emission limits based on performance testing results.
- 7 Emission limits during steady state operations are one-hour block averages and do not apply during startup/shutdown, malfunctions, and equipment cleaning.
- 8 If the gas turbine operates at below 50% load then the VOC emissions shall be considered as occurring at the rate established during the initial stack test for start up conditions. If the gas turbine operates at 50% or greater load and the CO emissions are below the CO emission limit, then the VOC emissions shall be considered as meeting the emission limits contained in this Operating Permit, subject to correlation as developed between CO and VOC emissions.
- 9 Facility-wide emissions are given in tons per rolling consecutive 12 month period. To calculate this amount of a consecutive 12 month rolling period take the current calendar month amount and add it to the previous 11 calendar months total amount.
- 10 Cold startup occurs when the turbine has not been in operation for a period of more than 48 hours. Operation below 50% power is limited to no more than 4 hours duration for each startup, shutdown, malfunction and fuel transition or for a duration that may be otherwise practical to achieve normal operation. Refer to both of MassDEP’s approvals: Test Approval, dated November 14, 2007, Modified Test Approval, dated August 7, 2009, under Application No. MBR-00-COM-029 for more details on the startup/shutdown limits.

# GenOn Kendall/Kendall Square - Proposed Operating Permit Renewal

Transmittal No. X227703

Page 11 of 28

- 11 Shutdown is the condition of bringing the turbine from 50% load to fuel cut off.
- 12 In accordance with 310 CMR 7.22(1), compliance is based on an annual calendar average. Compliance with sulfur content in fuel will demonstrate compliance with this applicable requirement.
- 13 This approval subsumes the Federal regulation 40 CFR 60.332(a)(1), Subpart GG requirement for the NO<sub>x</sub> emission limit of 75 ppm.
- 14 Greenhouse Gas means any chemical or physical substance that is emitted into the air and that the department may reasonably anticipate will cause or contribute to climate change including, but not limited to, CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, SF<sub>6</sub>, hydrofluorocarbons (HFCs), and perfluorocarbons(PFCs).

## B. COMPLIANCE DEMONSTRATION

The Permittee is subject to the monitoring/testing, record keeping, and reporting requirements as contained in Tables 4, 5, and 6 below and 310 CMR 7.00: Appendix C (9) and (10), as well as the applicable requirements contained in Table 3:

Table 4	
EU#	Monitoring and Testing Requirements
EU2, EU3	1) In accordance with 310 CMR 7.14(2) and 310 CMR 7.19(13)(a)1., compliance with NO <sub>x</sub> emission limits/standards shall be demonstrated with Continuous Emissions Monitoring Systems (CEMS). The NO <sub>x</sub> CEMS shall meet the requirements specified in 310 CMR 7.19(13)(b). The NO <sub>x</sub> CEMS shall comply with 40 CFR Part 60, Appendix B (Performance Specifications), and 40 CFR Part 60 Appendix F (Quality Control Procedures), or alternatively as allowed under 310 CMR 7.19(13)(b), NO <sub>x</sub> emissions shall be monitored in accordance with the Acid Rain Program 40 CFR Part 72, pursuant to the procedures in 40 CFR Part 75. Use Part 75 procedures to gather and analyze data, provide quality assurance and quality control in order to determine compliance with 310 CMR 7.19, except that the missing data routine and bias adjustment factors contained in 40 CFR Part 75 need not be applied. The CEMS shall be calibrated, tested, and maintained in accordance with the manufacturer's, MADEP, and Federal U.S EPA requirements.
	2) In accordance with 310 CMR 7.19(13)(a)1., compliance with CO emission limits/standards shall be demonstrated with CEMS as specified in 310 CMR 7.19(13)(b). CO emissions shall be monitored as specified in 310 CMR 7.19(13)(b)1 through 7.19(13)(b)12. Monitor CO emissions with CEMS certified in accordance with the performance specifications contained in 40 CFR Part 60, Appendix B and use the procedures contained in 40 CFR Part 60, Appendix F to comply, provide quality assurance and quality control. The CEMS shall be calibrated, tested, and maintained in accordance with the manufacturer's, MassDEP, and Federal U.S EPA requirements.
	3) In accordance with 310 CMR 7.19(13)(b), the facility must obtain valid data for at least 75% of the hours per day, 75% of the days per month, and 90% of the hours per quarter during which the emission unit is operating.
	4) In accordance with 310 CMR 7.19(13), the Permittee shall calculate a calendar day average from a block hourly average for each hour the emissions unit is operating. Block hourly averages shall be calculated from at least 3 data points, generated by a CEMS at 15 minute intervals over each one-hour period, unless the alternative 40 CFR Part 75 procedures are used to form hourly averages, as allowed under 310 CMR 7.19(13)(b).
	5) In accordance with 310 CMR 7.14(2) and the Acid Rain Program 40 CFR Part 72, monitor SO <sub>2</sub> emissions by using fuel sampling and analysis methodologies pursuant to 40 CFR Part 75. Compliance with 40 CFR Part 75 shall constitute compliance with this requirement.
	6) In accordance with the Acid Rain Program 40 CFR Part 72, monitor flue gas volumetric flow or alternatively as allowed under Appendix D, conduct fuel oil and natural gas fuel analysis and volumetric fuel flow measurements pursuant to 40 CFR Part 75 and use the procedures contained therein to gather and analyze data, provide quality assurance and quality control.
	7) In accordance with 310 CMR 7.14(2) and the Acid Rain Program 40 CFR Part 72, measure carbon dioxide (CO <sub>2</sub> ) in the flue gas with CEMS. The CO <sub>2</sub> CEMS shall meet the requirements of 40 CFR Part 75 in order to convert NO <sub>x</sub> CEMS data to units of the applicable emission standards as specified in Table 3. Compliance with 40 CFR Part 75 shall constitute compliance with this requirement.
	8) In the event that CEMS are inoperative, comply with 40 CFR Part 75, Subpart D as follows: - Determination of CO <sub>2</sub> emissions from fuel sampling and analysis as contained in 40 CFR Part 75, Appendix G,

<b>Table 4</b>	
<b>EU#</b>	<b>Monitoring and Testing Requirements</b>
EU2, EU3	whenever CO <sub>2</sub> continuous emissions data is unavailable for more than 72 hours. - Determination of heat input from fuel sampling and analysis as contained in 40 CFR Part 75, Appendix F, whenever CO <sub>2</sub> continuous emissions data is unavailable for more than 72 hours.
	9) In accordance with 310 CMR 7.14(2) and the Acid Rain Program 40 CFR Part 72 and 40 CFR Part 75, compliance with opacity shall be demonstrated utilizing Continuous Opacity Monitoring Systems (COMS). The opacity COMS shall meet Performance Specification 1 of 40 CFR Part 60, Appendix B.
	10) In accordance with 310 CMR 7.04(2)(a), operate continuously and maintain in an accurate operating condition smoke density indicators equipped with audible alarms and recorders that signal the need for combustion equipment adjustment or repair when the smoke density is equal to or greater than No. 1 of the Chart. Compliance with 40 CFR Part 75 for opacity monitoring shall constitute compliance with this requirement.
	11) Monitor NO <sub>x</sub> with CEMs meeting the requirements of 40 CFR Part 75, and use the procedures contained therein to gather and analyze data, provide quality assurance and quality control. Compliance with 40 CFR Part 75 shall constitute compliance with this requirement. Monitor flue gas mass or volumetric flow with a CEMS flow monitoring systems pursuant to 40 CFR Part 75 and use the procedures contained therein to gather and analyze data, provide quality assurance and quality control.
	12) In accordance with 310 CMR 7.04(4)(a), inspect and maintain fuel utilization facility in accordance with manufacturer's recommendations and test for efficient operation at least annually.
EU2, EU3, EU4	13) In accordance with 310 CMR 7.70(8)(a)1.a. and Emission Control Plan (ECP) Transmittal No. X223523, install all monitoring systems necessary to monitor CO <sub>2</sub> mass emissions in accordance with 40 CFR Part 75, except equation G-1 in Appendix G shall not be used to determine CO <sub>2</sub> emissions under 310 CMR 7.70(8). (State only requirement)
	14) In accordance with 310 CMR 7.70(8)(a)2.a. and Emission Control Plan (ECP) Transmittal No. X223523, each CO <sub>2</sub> budget unit that commenced commercial operation before July 1, 2008, must be in compliance with the requirements of 310 CMR 7.70(8) by January 1, 2009. (State only requirement)
	15) In accordance with 310 CMR 7.70(8)(h)1. and Emission Control Plan (ECP) Transmittal No. X223523, submit to the Department or its agent net electrical output. (State only requirement)
	16) In accordance with 310 CMR 7.70(8)(h)2. and Emission Control Plan (ECP) Transmittal No. X223523, use billing meters or an alternative method approved by the Department for quantification of net steam output. If data for steam output is not available, report heat input providing useful steam output as a surrogate for steam output. (State only requirement)
	17) In accordance with 310 CMR 7.70(8)(h)4.a. and Emission Control Plan (ECP) Transmittal No. X223523, the billing meter shall record the electric output. (State only requirement)
	18) In accordance with 310 CMR 7.70(8)(h)5.b. and Emission Control Plan (ECP) Transmittal No. X223523, the thermal output monitoring system shall either meet a system accuracy of within 10% of the reference value, or each component monitor for the output system shall meet an accuracy of within 3.0% of the full scale value, whichever is less stringent. (State only requirement)
	19) In accordance with 310 CMR 7.70(8)(h)5.c. and Emission Control Plan (ECP) Transmittal No. X223523, when a component of output measurement equipment fails to pass an accuracy test, all data shall be replaced by either zero or an output value that is approved as part of the monitoring plan required under 310 CMR 7.70(8)(h)3. until the component passes an accuracy test or is replaced with another piece of equipment that passes the accuracy test. (State only requirement)
EU-S6	20) In accordance with 310 CMR 7.14(2), monitor parameters indicative of NO <sub>x</sub> meeting the requirements of 40 CFR Part 75 Appendix E and use the procedures contained therein to gather and analyze data, provide quality assurance and quality control. Compliance with 40 CFR Part 75 Appendix E shall constitute compliance with this requirement.
	21) In accordance with 310 CMR 7.19(13)(d)3., monitor quantity of fuel oil burned each day, heat content of fuel oil, and total heating value of the fuel oil consumed for each day.
	22) Conduct annual stack testing for NO <sub>x</sub> and CO for this EU before October 1 <sup>st</sup> of each year as per Regulations 310 CMR 7.19(13)(a)7 and 7.19(13)(c)5. As part of this stack testing program, The Permittee perform low load testing to determine the low load condition that triggers the higher CO limit of 500 ppmvd. The Permittee shall set the low load operation as less than 10 MW.
	23) Operate and maintain for EU-S6 a certified opacity monitor and recorder in accordance with EPA's Performance

<b>Table 4</b>	
<b>EU#</b>	<b>Monitoring and Testing Requirements</b>
	Specification 1 (PS-1) as referenced in 40 CFR Part 60, Appendix B.
	24) In accordance with 40 CFR 64.3 Compliance Assurance Monitoring (CAM) and the CAM plan submitted by the facility on June 19, 2009, monitor the water injection rates of EU-S6 to ensure it stays within the ranges observed during the most recent annual compliance testing to demonstrate compliance with NO <sub>x</sub> and CO emission limitations.
EU2, EU3	25) Calculate SO <sub>2</sub> emissions for EU2 and EU3 and hourly operations data for EU-S6 to demonstrate compliance with ACO-NE-94-7001 based on 40 CFR Part 75, Appendix E methodology.
	26) Monitor records of No. 6 fuel oil as required by 310 CMR 7.19(13)(d)5.
EU4	27) In accordance with Plan Approval No. MBR-00-COM-029, CEMS and COMS shall be used as direct compliance monitors to demonstrate compliance with NO <sub>x</sub> , CO, NH <sub>3</sub> , and Opacity.
	28) In accordance with Plan Approval No. MBR-00-COM-029, the CEMS and COMS shall operate at all times except for periods of CEMS and COMS calibration checks, zero and span adjustments, preventative maintenance, and periods of unavoidable malfunction.
	29) In accordance with Plan Approval No. MBR-00-COM-029, the CEMS shall obtain and record emission data for at least 75% of the emission unit's operating hours per day, for at least 75% of the emission unit's operating hours per month, and for at least 95% of the emission unit's operating hours per quarter, except for periods of CEMS calibration checks, zero and span adjustments, and preventive maintenance.
	30) Monitor and record the sulfur content in natural gas on a daily basis or pursuant to any alternative fuel monitoring schedule issued, in accordance with 40 CFR Part 60, Subpart GG 60.334(h).
	31) Operate continuous monitors and alarm systems to track the temperature at the inlet to the SCR and CO catalysts, in accordance with Plan Approval No. MBR-00-COM-029.
EU8	32) Effective 5/3/2013: Monitor the following maintenance items: a) Track the hours of operation of each unit to ensure the change of oil every 500 hours of operation or annual, whichever comes first; b) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and c) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first and replace as necessary. These items are required by 40 CFR Part 63, Subpart ZZZZ.
Facility-Wide	33) Monitor operations such that information may be compiled for the annual preparation of a Source Registration/Emission Statement Form as required by 310 CMR 7.12.
	34) Conduct Emissions Compliance Testing (Stack Testing), in accordance with 310 CMR 7.13, 310 CMR 7.19(13)(c), and 40 CFR Part 60, Appendix A (Method 7E for NO <sub>x</sub> , Methods 1 to 5 for PM, Method 3A for Oxygen (O <sub>2</sub> )) or any other testing, when requested by the MassDEP or EPA.
	35) Opacity shall be determined in accordance with EPA Test Method 9, as specified in 40 CFR Part 60, Appendix A, if and when requested by the MassDEP or EPA. This method shall also apply to detached plumes.
	36) Demonstrate compliance with 310 CMR 7.19 by monitoring all data relevant to 310 CMR 7.19(13)(d). This monitoring shall include, but not be limited to, CEMS performance evaluations, maintenance, and adjustments, and also excess emissions, daily fuel data, and fuel supplier certifications.
	37) In accordance with 310 CMR 7.00: Appendix C(9)(b)2., monitor sulfur of each new shipment of fuel oil received. Compliance with sulfur content can be demonstrated through testing or maintaining a shipping receipt from the fuel supplier. The shipment certification or testing of sulfur content of fuel oil shall be in accordance with the applicable American Society for Testing Materials (ASTM) test methods or any other method approved by the MassDEP and EPA.
	38) In accordance with 310 CMR 7.71(1) and Appendix C(9) establish and maintain data systems or record keeping practices (e.g. fuel use records, SF <sub>6</sub> usage documentation, Continuous Emissions Monitoring System) for greenhouse gas emissions to ensure compliance with the reporting provisions of M.G.L. c. 21N, the Climate Protection and Green Economy Act, St. 2008, c. 298, § 6. (State only requirement)

**Table 5**

EU#	Record Keeping Requirements
EU2, EU3	<p>1) Record on a continuous basis emissions of NO<sub>x</sub> in accordance with the requirements of 310 CMR 7.14(2) and 310 CMR 7.19(13)(a)1.</p> <p>2) Record on a continuous basis emissions of CO in accordance with the requirements of 310 CMR 7.19(13)(b)1. through 7.19(13)(b)12, 40 CFR Part 60, Appendix B, and 40 CFR Part 60 Appendix F.</p> <p>3) In accordance with 310 CMR 7.04(4)(a), maintain records of the fuel utilization facility annual tests for efficient operation.</p> <p>4) Record on a continuous basis fuel oil and natural gas flow in accordance with 40 CFR Part 75.</p> <p>5) In accordance with Approval MBR-94-COM-019, record on a continuous basis quantity of each fuel burned, heat input of each fuel burned in accordance with the requirements of 40 CFR Part 75.</p> <p>6) Record on a continuous basis O<sub>2</sub> or CO<sub>2</sub> in the flue gas in accordance with the requirements of 40 CFR Part 75.</p> <p>7) Record the date and amount of time when CEMS are inoperative in accordance with the requirements of 40 CFR Part 75.</p> <p>8) Record on a continuous basis opacity in accordance with the requirements of 40 CFR Part 75 and 40 CFR Part 60, Appendix B.</p> <p>9) Maintain records of COMS records required by 40 CFR Part 75 and 40 CFR Part 60, Appendix B.</p> <p>10) Maintain records to demonstrate compliance with ACO-NE-94-7001.</p> <p>11) Maintain records of No. 6 fuel oil as required by 310 CMR 7.19(13)(d)5.</p> <p>12) In accordance with 310 CMR 7.70(8)(e)1. and Emission Control Plan (ECP) Transmittal No. X223523, comply with all record keeping and reporting requirements in 310 CMR 7.70(8)(e), with all applicable record keeping and reporting requirements under 40 CFR 75.73, and with the requirements of 310 CMR 7.70(2)(a)5. (State only Requirement)</p> <p>13) In accordance with 310 CMR 7.70(8)(h)6.a. and Emission Control Plan (ECP) Transmittal No. X223523, comply with all output recordkeeping and reporting requirements in 310 CMR 7.70(8)(h) and with the requirements of 310 CMR 7.70(1)(e)5. and (2)(a)5. (State only requirement)</p> <p>14) In accordance with 310 CMR 7.70(8)(h)6.b. and Emission Control Plan (ECP) Transmittal No. X223523, retain data used to monitor, determine, or calculate net generation for ten years from the date reported. (State only requirement)</p>
EU2,EU3,EU4	<p>15) In accordance with 310 CMR 7.70(8)(e)1. and Emission Control Plan (ECP) Transmittal No. X223523, comply with all recordkeeping and reporting requirements in 310 CMR 7.70(8)(e), with all applicable record keeping and reporting requirements under 40 CFR 75.73, and with the requirements of 310 CMR 7.70(2)(a)5. (State only requirement)</p> <p>16) In accordance with 310 CMR 7.70(8)(h)6.a. and Emission Control Plan (ECP) Transmittal No. X223523, comply with all output recordkeeping and reporting requirements in 310 CMR 7.70(8)(h) and with the requirements of 310 CMR 7.70(1)(e)5. and (2)(a)5. (State only requirement)</p> <p>17) In accordance with 310 CMR 7.70(8)(h)6.b. and Emission Control Plan (ECP) Transmittal No. X223523, retain data used to monitor, determine, or calculate net generation for ten years from the date reported. (State only requirement)</p>
EU2, EU3,EU-S6	<p>18) Maintain all records as required by 310 CMR 7.19(13)(d)3.</p> <p>19) Maintain all stack test records on-site as referenced in the combined Final Approval MBR-94-COM-019 and MBR-94-COM-036.</p> <p>20) Comply with all applicable record keeping requirements contained in 40 CFR 60, 40 CFR 72, 40 CFR 75.</p>
EU-S6	<p>21) In accordance with 40 CFR 64.3 (CAM) and the CAM plan submitted by the facility on June 19, 2009, record the water injection rate into EU-S6 during its steady-state operation on a continuous basis.</p> <p>22) In accordance with 40 CFR 64.3 (CAM) and the CAM plan submitted by the facility on June 19, 2009, maintain records of inspection and maintenance activities on EU-S6 as detailed in the CAM plan.</p>
EU8	<p>23) Keep records of the following maintenance items: a) Track the hours of operation of each unit to ensure the change of oil every 500 hours of operation or annual, whichever comes first; b) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and c) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first and replace as necessary. These items are required by 40 CFR Part 63, Subpart ZZZZ.</p>
Facility-wide	<p>24) In accordance with 310 CMR 7.00: Appendix C(10)(b), maintain records of all monitoring data and supporting information required by this Operating Permit on site for 5 years from the date of the monitoring sample, measurement, report or initial Operating Permit application.</p> <p>25) Maintain records of COMS to demonstrate compliance with 310 CMR 7.06(1).</p> <p>26) Maintain records such that information may be compiled for the annual preparation of a Source Registration/Emission</p>

<b>Table 5</b>	
<b>EU#</b>	<b>Record Keeping Requirements</b>
	Statement Form as required by 310 CMR 7.12(3)(b).
	27) Maintain records for Emissions Compliance Testing (Stack Testing), in accordance with 310 CMR 7.13, 310 CMR 7.19(13)(c), and 40 CFR Part 60, Appendix A (Method 7E for NO <sub>x</sub> , Methods 1 to 5 for PM, Method 3A for Oxygen (O <sub>2</sub> )) or any other testing if and when requested by the MassDEP or EPA.
	28) Maintain records for opacity in accordance with EPA Test Method 9, as specified in 40 CFR Part 60, Appendix A, if and when requested by the MassDEP or EPA. This method also applies to any detached plumes.
	29) Maintain records of all data relevant to 310 CMR 7.19(13)(d). This data shall include, but not be limited to, CEMS performance evaluations, maintenance, and adjustments, and also excess emissions, daily fuel data, and fuel supplier certifications.
	30) In accordance with 310 CMR 7.00: Appendix C(9)(b)2., maintain records for sulfur content of each new shipment of fuel oil received.
	31) In accordance with 310 CMR 7.71 (6) b. and c. retain at the facility for five years and make available to the Department upon request copies of the documentation of the methodology and data used to quantify emissions. (State only requirement)

<b>Table 6</b>	
<b>EU#</b>	<b>Reporting Requirements</b>
EU2, EU3	1) Submit to this Regional Office by the 30th day of April, July, October, and January of each calendar year, a report showing any excess emissions as measured by the CEMS within the previous quarter along with all applicable and appropriate information as referenced in 310 CMR 7.19(13)(d)2.
	2) Report as required by 40 CFR Part 75, Subpart G.
	3) NO <sub>x</sub> emissions data should be reported directly to EPA's National Computer Center mainframe computer in a method acceptable to EPA. The deadline to submit data to EPA is 30 days after the end of each calendar quarter as required by 40 CFR Part 75.
	4) Notification of quality assurance (QA) testing is required for Relative Accuracy Test Audits (RATAs) and AppendixE/LME (Low Mass Emission) unit tests. Notification must be made at least 21 days prior to the scheduled test date to the EPA as required by 40 CFR 75.61 and to the MassDEP's Northeast Regional office, Attn: BWP Permit Chief. If tests must be rescheduled, 24 hours notice must be given, as specified in 40 CFR 75.61(a)(5).
	5) A previously approved RATA protocol may be referenced at the time of test notification provided that the referenced protocol was completed in accordance with current 40 CFR Part 75 procedures, addressed all previous MassDEP protocol comments to the satisfaction of the MassDEP, and none of the information has changed. If a revised protocol must be submitted, it must be submitted at least 21 days prior to the scheduled test date.
	6) A hardcopy of the QA RATA or Appendix E/LME test results must be submitted to the MassDEP's Northeast Regional office within 45 days of completion of tests. The electronic results must be submitted in the quarterly electronic data report (EDR) as required by 40 CFR Part 75.
	7) Results from QA daily calibrations, quarterly linearity checks and Appendix D Fuel Flowmeter tests as applicable, must be reported electronically in the EDR submittal for the quarter in which the testing occurs as required by 40 CFR Part 75.
EU-S6	8) In accordance with 40 CFR 64.3 (CAM) and the CAM plan submitted by the facility on June 19, 2009, report any excursions that are outside the normal water injection range as detailed in the CAM plan.
EU4	9) In accordance with Plan Approval MBR-00-COM-029, submit by the 30 <sup>th</sup> of the following month after each calendar quarter the facility CEMS and COMS excess emission data or excursions from allowable operating conditions during the previous calendar quarter. This report shall include the duration, cause, the response taken, and the amount of excess emissions. Periods of excess emissions shall include periods of start-up, shutdown, malfunction, emergency, equipment cleaning, and upsets or failures associated with the emission control system or CEMS or COMS.
EU2,EU3,EU4	10) In accordance with 310 CMR 7.70(2)(a)5. and Emission Control Plan (ECP) Transmittal No. X223523, each submission under the CO <sub>2</sub> Budget Trading Program shall be submitted, signed, and certified by the CO <sub>2</sub> authorized account representative. (State only requirement)
	11) In accordance with 310 CMR 7.70(4)(a) and Emission Control Plan (ECP) Transmittal No. X223523, for each control period in which a CO <sub>2</sub> budget source is subject to the CO <sub>2</sub> requirements of 310 CMR 7.70(1)(e)3., submit to the Department by the March 1 following the relevant control period, a compliance certification report to Bureau of Waste Prevention at the MassDEP Boston office. The compliance certification shall contain, at a minimum, the items listed in

<b>Table 6</b>	
<b>EU#</b>	<b>Reporting Requirements</b>
EU2,EU3,EU4	310 CMR 7.70(4)(a)2. and 3. (State only requirement)
	12) In accordance with 310 CMR 7.70(6)(c) and Emission Control Plan (ECP) Transmittal No. X223523, following the establishment of a CO <sub>2</sub> Allowance Tracking System account, all submissions to the Department or its agent pertaining to the account, shall be made only by the CO <sub>2</sub> authorized account representative for the account. (State only requirement)
	13) In accordance with 310 CMR 7.70(8)(d) and Emission Control Plan (ECP) Transmittal No. X223523, the CO <sub>2</sub> authorized account representative shall submit written notifications to the Department and the Administrator in accordance with 40 CFR 75.61. (State only requirement)
	14) In accordance with 310 CMR 7.70(8)(e)1 and Emission Control Plan (ECP) Transmittal No. X223523, comply with all recordkeeping and reporting requirements in 310 CMR 7.70(8)(e), the applicable record keeping and reporting requirements under 40 CFR 75.73 and with the requirements of 310 CMR 7.70(2)(a)5. (State only requirement)
	15) In accordance with 310 CMR 7.70(8)(e)4.a.i. and Emission Control Plan (ECP) Transmittal No. X223523, report the CO <sub>2</sub> mass emissions data for the CO <sub>2</sub> budget unit that commenced commercial operation before July 1, 2008, in an electronic format prescribed by the Administrator, unless otherwise prescribed by the Department, for each calendar quarter beginning with the calendar quarter covering January 1, 2009 through March 31, 2009. (State only requirement)
	16) In accordance with 310 CMR 7.70(8)(e)4.c. and Emission Control Plan (ECP) Transmittal No. X223523, submit to the Department or its agent a compliance certification in support of each quarterly report. (State only requirement)
	17) In accordance with 310 CMR 7.70(8)(h)6.a. and Emission Control Plan (ECP) Transmittal No. X223523, comply with all output recordkeeping and reporting requirements in 310 CMR 7.70(8)(h) and with the requirements of 310 CMR 7.70(1)(e)5. and (2)(a)5. (State only requirement)
	18) In accordance with 310 CMR 7.70(8)(h)6.c. and Emission Control Plan (ECP) Transmittal No. X223523, submit annual output reports in a spreadsheet both electronically and in hardcopy by March 1 for the immediately preceding calendar year to the Bureau of Waste Prevention at the MassDEP Boston office or the Department's agent. (State only requirement)
Facility-wide	19) Within 30 days after the close of each calendar quarter submit a "Fuel Use Report" to this Office delineating the quantity of natural gas and fuel oil fired (on an hourly basis) and the sulfur content of any fuel oil burned (pounds of sulfur per million B.t.u.) during said calendar quarter. Should the Permittee install and operate a SO <sub>2</sub> CEM system, the Permittee shall, in lieu of the Fuel Use Report, submit within 30 days after the close of each calendar quarter, a "SO <sub>2</sub> CEM Excess Emission Report" to the MassDEP delineating any SO <sub>2</sub> emission in excess of the limits set forth in Table 3 as required in ACO-NE-94-7001.
	20) Submit a Source Registration/Emission Statement form to the MassDEP on an annual basis as required by 310 CMR 7.12.
	21) In accordance with 310 CMR 7.13(1) and 7.13(2), if determined by the Department that stack testing is necessary to ascertain compliance with the Department's regulations or design approval provisos, the Permittee shall cause such stack testing to be summarized and submitted to the Department as prescribed in the agreed to test protocol.
	22) In accordance with 310 CMR 7.00: Appendix C(10)(c), the Permittee shall report summary of all monitoring data and related supporting information to the MassDEP at least every six months (January 30 and July 30 of each calendar year.
	23) Submit Annual Compliance report to MassDEP and EPA by January 30 <sup>th</sup> of each year and as required by General Condition 10.
	24) Promptly report to the MassDEP all instances of deviations from permit requirements (including but not limited to testing for efficient operation, ignition timing, fuel sulfur and fuel ash content, emission limitations/standards, Standard Operating and Maintenance Procedures) by telephone or fax, within three days of discovery of such deviation, as provided in 310 CMR 7.00: Appendix C(10)(f). (See General Condition 25).
	25) In accordance with 310 CMR 7.19(13)(d)9., submit compliance records within ten (10) days of written request by the MassDEP or EPA.
	26) Submit Emissions Compliance Testing (Stack Testing) reports in accordance with 310 CMR 7.19(13)(c).
	27) All required reports must be certified by a responsible official as provided in 310 CMR 7.00: Appendix C(10)(h).
	28) In accordance with 310 CMR 7.71(5), by April 15 <sup>th</sup> , 2010 and April 15 <sup>th</sup> of each year thereafter report emissions of greenhouse gases from stationary emissions sources including, but not limited to, emissions from factory stacks, manufacturing processes and vents, fugitive emissions, and other process emissions; and owned or leased motor vehicles when stationary source greenhouse gas emissions are greater than 5,000 short tons CO <sub>2</sub> e. Report greenhouse gas emissions electronically in a format that can be accommodated by the registry. (state only requirement)



<b>Table 6</b>	
<b>EU#</b>	<b>Reporting Requirements</b>
	29) In accordance with 310 CMR 7.71(6), certify greenhouse gas emissions reports using a form provided by the Department or the registry. (state only requirement)
	30) In accordance with 310 CMR 7.71(7), by December 31 <sup>st</sup> of the applicable year submit to the Department documentation of triennial verification of the greenhouse gas emissions report. (state only requirement)

### C. GENERAL APPLICABLE REQUIREMENTS

The Permittee shall comply with all generally applicable requirements contained in 310 CMR 7.00 et. seq. and 310 CMR 8.00 et. seq., when subject.

### D. REQUIREMENTS NOT CURRENTLY APPLICABLE

The Permittee is currently not subject to the following requirements:

<b>Table 7</b>	
<b>Regulation</b>	<b>Reason</b>
310 CMR 7.16	Reduction of Single Occupant Commuter Vehicle Use: Number of Employees is below the threshold level.
310 CMR 7.27	Superseded by 310 CMR 7.28 and 7.32
310 CMR 7.28	As of January 1, 2009, this regulation is no longer applicable; it was superseded by 310 CMR 7.32.
40 CFR Part 63, Subpart UUUUU	Under §63.9983 - Any electric utility steam generating unit that has the capability of combusting more than 25 MW of coal or oil but did not fire coal or oil for more than 10.0 percent of the average annual heat input during any 3 calendar years or more than 15.0 percent of the annual heat input during any calendar year .

## 5. SPECIAL TERMS AND CONDITIONS

The Permittee is subject to and shall comply with the following special terms and conditions that are not contained in Tables 3, 4, 5, and 6:

<b>Table 8</b>		
<b>Special Terms and Conditions</b>		
1) That should any nuisance condition(s) be generated by the operation of this facility, then appropriate steps will immediately be taken by the Permittee to abate said nuisance condition(s) (State Requirement Only 310 CMR 7.01(1)).		
2) Per data as supplied through the Permittee's Operating Permit application (MBR-95-OPP-022, Transmittal No. X227703) and supplemental Operating Permit application (February 17, 2010), all EUs shall continue to emit products of combustion through the following flues with the following parameters:		
EU2	Flue Height Flue Exit Diameter Stack Material	175 feet 10 feet Brick with gunite lining
EU3	Flue Height Flue Exit Diameter Stack Material	175 feet 9.6 feet Brick with gunite lining

<b>Table 8</b>		
<b>Special Terms and Conditions</b>		
EU-S6	Flue Height Flue Exit Diameter Stack Material	32.5 feet 10 feet x 14 feet Metal
EU4	Flue Height Flue Exit Diameter Stack Material	250 feet 16.75 feet Metal
3) To constitute a valid hour of data for CEMS, the applicable NOx RACT 310 CMR 7.19(13) (b) 9 or Part 75 data reduction specification shall be used for the determination of meeting the data capture requirement in Table 4 for each emission unit using CEMS.		
4) The Permittee, if necessary, may operate its combustion gas turbine, EU-S6, for "black start use" until ISO-New England and NSTAR begin the process of directing the power from Kendall Station to aid in the restoration of electricity flow into the power grid system as stated in your Modified Approval, Application No. MBR-94-COM-019, dated May 5, 2009.		
5) Massachusetts CO <sub>2</sub> Budget Trading Program, 310 CMR 7.70: The owner/operator of EU4 is subject to the Massachusetts CO <sub>2</sub> Budget Trading Program, 310 CMR 7.70 and shall comply with all applicable requirements therein. In accordance with 310 CMR 7.70(3)(b), the CO <sub>2</sub> authorized account representative shall submit a complete CO <sub>2</sub> budget emission control plan under 310 CMR 7.70(3)(c) covering EU4 to the MassDEP on or before August 1, 2008.		

#### **Federal Acid Rain Program**

EU2, EU3, and EU4 are subject to the requirements of Phase II of the Federal Acid Rain Program as defined by EPA in 40 CFR Part 72. Pursuant to 40 CFR Parts 72.71 and 72.73, and 310 CMR 7.00: Appendix C(3)(n), the MassDEP is the permitting authority for Phase II Acid Rain Permits. The MassDEP issued an initial Phase II Acid Permit for the facility on December 22, 1997 and renewed said permit on January 28, 2003. MassDEP is incorporating the requirements of the renewal Phase II Acid Rain Permit into this Operating Permit Renewal. The Phase II Acid Rain requirements will renew in this Operating Permit Renewal.

Within 60 days of the end of each calendar year, the facility must hold in its SO<sub>2</sub> allowance account for each EU at least one allowance for each ton of SO<sub>2</sub> emitted during the previous year. An allowance is a limited authorization to emit SO<sub>2</sub> in accordance with the Acid Rain Program.

If the facility has excess emissions in any calendar year, it shall submit a proposed offset plan as required under 40 CFR Part 77. In addition, the Permittee shall pay any penalties specified in 40 CFR Part 77 and comply with the terms of an approved offset plan.

In accordance with 40 CFR Part 73, the Permittee's designated representative may buy, sell, trade, or transfer allowances between EU accounts at any time, except between 60 days of the end of the calendar year and the completion of the annual SO<sub>2</sub> allowance reconciliation for the preceding year(s).

The yearly allowance allocations as identified in 40 CFR Part 73, Tables 2, 3, or 4 (as amended) are identified below:

EU#	YEAR
	2010 and beyond
EU2	208
EU3	422
EU4	0

**NOISE** State-only requirement

The Permittee shall not allow the maximum combination of plant generated and background ambient noise exceed 62 dBA at any of the Receptor Locations listed below (See Table and Note 1 below.).

<b>Table: Noise Receptor Locations</b>
Office Building Across Canal
Proposed Cambridge Research Park Residential
Esplanade Condominiums
MIT Sloan Dormitory
Day Care Center on Third Street
Linskey Way
Beacon Hill
PL-1 Property Line (SE)
PL-2 Property Line (S)
PL-3 Property Line (SW)
PL-4 Property Line (NW)
PL-5 Property Line (N)
PL-6 Property Line (NE)

**Table Notes:**

1. The lowest background levels (one hour) observed during either nighttime or daytime where the noise level is exceeded 90 percent of the time ( $L_{90}$ ) which is the level regulated by the Massachusetts DEP Noise Policy.
2. The ambient & plant levels include the highest levels from an operating scenario, such as gas-firing or oil-firing.
3. The Massachusetts DEP Noise Policy limits new noise increases to no more than 10 dBA over the  $L_{90}$  ambient levels. Tonal sounds, defined as any octave band level which exceeds the levels in adjacent octave bands by 3 dB or more, are not allowed.

## 6. ALTERNATIVE OPERATING SCENARIOS

<b>Table 9</b>
<b>Alternative Operating Scenarios</b>
The Permittee did not request alternative operating scenarios in its Operating Permit application.

## 7. EMISSIONS TRADING

<b>Table 10</b>
<b>Emissions Trading</b>
A. <u>INTRA-FACILITY EMISSION TRADING</u>
The Permittee did not request intra-facility emissions trading in its Operating Permit application.

A. INTER-FACILITY EMISSION TRADING

The Permittee did not request inter-facility emissions trading in its Operating Permit application.

**8. COMPLIANCE SCHEDULE**

The Permittee has indicated that the facility is in compliance and shall remain in compliance with the applicable requirements contained in Sections 4 and 5.

In addition, the Permittee shall comply with any applicable requirements that become effective during the Permit term.

## GENERAL CONDITIONS FOR OPERATING PERMIT

### 9. FEES

The Permittee has paid the permit application processing fee and shall pay the annual compliance fee in accordance with the fee schedule pursuant to 310 CMR 4.00.

### 10. COMPLIANCE CERTIFICATION

All documents submitted to the MassDEP shall contain certification by the responsible official of truth, accuracy, and completeness. Such certification shall be in compliance with 310 CMR 7.01(2) and contain the following language:

"I certify that I have personally examined the foregoing and am familiar with the information contained in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including possible fines and imprisonment."

The "Operating Permit Reporting Kit" contains instructions and the Annual Compliance Report and Certification and the Semi-Annual Monitoring Summary Report and Certification. The "Operating Permit Reporting Kit" is available to the permittee via the MassDEP's web site, <http://www.mass.gov/dep/air/approvals/aqforms.htm#op>.

#### (a) Annual Compliance Report and Certification

The Responsible Official shall certify, annually for the calendar year, that the facility is in compliance with the requirements of this permit. The report shall be postmarked or delivered by January 30 to the MassDEP and to the Regional Administrator, U.S. Environmental Protection Agency - New England Region. The report shall be submitted in compliance with the submission requirements below.

The compliance certification and report shall describe:

- i. the terms and conditions of the permit that are the basis of the certification;
- ii. the current compliance status and whether compliance was continuous or intermittent during the reporting period;
- iii. the methods used for determining compliance, including a description of the monitoring, record keeping, and reporting requirements and test methods; and
- iv. any additional information required by the MassDEP to determine the compliance status of the source.

#### (b) Semi-Annual Monitoring Summary Report and Certification

The Responsible Official shall certify, semi-annually on the calendar year, that the facility is in compliance with the requirements of this permit. The report shall be postmarked or delivered by January 30 and July 30 to the MassDEP. The report shall be submitted in compliance with the submission requirements below.

The compliance certification and report shall describe:

- i. the terms and conditions of the permit that are the basis of the certification;
- ii. the current compliance status during the reporting period;
- iii. the methods used for determining compliance, including a description of the monitoring, record keeping, and reporting requirements and test methods;
- iv. whether there were any deviations during the reporting period;
- v. if there are any outstanding deviations at the time of reporting, and the Corrective Action Plan to remedy said deviation;
- vi. whether deviations in the reporting period were previously reported;
- vii. if there are any outstanding deviations at the time of reporting, the proposed date of return to compliance;

- viii. if the deviations in the reporting period have returned to compliance and date of such return to compliance; and
- ix. any additional information required by the MassDEP to determine the compliance status of the source.

## **11. NONCOMPLIANCE**

Any noncompliance with a permit condition constitutes a violation of 310 CMR 7.00: Appendix C and the Act, and is grounds for enforcement action, for permit termination or revocation, or for denial of an Operating Permit renewal application by the MassDEP and/or EPA. Noncompliance may also be grounds for assessment of administrative or civil penalties under M.G.L. c.21A, §16 and 310 CMR 5.00; and civil penalties under M.G.L. c.111, §142A and 142B. This permit does not relieve the permittee from the obligation to comply with any other provisions of 310 CMR 7.00 or the Act, or to obtain any other necessary authorizations from other governmental agencies, or to comply with all other applicable Federal, State, or Local rules and regulations, not addressed in this permit.

## **12. PERMIT SHIELD**

- (a) This facility has a permit shield provided that it operates in compliance with the terms and conditions of this permit. Compliance with the terms and conditions of this permit shall be deemed compliance with all applicable requirements specifically identified in Sections 4, 5, 6, and 7 for the emission units as described in the permittee's application and as identified in this permit.

Where there is a conflict between the terms and conditions of this permit and any earlier approval or permit, the terms and conditions of this permit control.

- (b) The MassDEP has determined that the Permittee is not currently subject to the requirements listed in Section 4, Table 7.
- (c) Nothing in this permit shall alter or affect the following:
  - (i) the liability of the source for any violation of applicable requirements prior to or at the time of permit issuance.
  - (ii) the applicable requirements of the Acid Rain Program, consistent with 42 U.S.C. §7401, §408(a); or
  - (iii) the ability of EPA to obtain information under 42 U.S.C. §7401, §114 or §303 of the Act.

## **13. ENFORCEMENT**

The following regulations found at 310 CMR 7.02(8)(h) Table 6 for wood fuel, 7.04(9), 7.05(8), 7.09 (odor), 7.10 (noise), 7.18(1)(b), 7.21, 7.22, 7.70 and any condition(s) designated as "state only" are not federally enforceable because they are not required under the Act or under any of its applicable requirements. These regulations and conditions are not enforceable by the EPA. Citizens may seek equitable or declaratory relief to enforce these regulations and conditions pursuant to Massachusetts General Law Chapter 214, Section 7A.

All other terms and conditions contained in this permit, including any provisions designed to limit a facility's potential to emit, are enforceable by the MassDEP, EPA, and citizens as defined under the Act.

A Permittee shall not claim as a defense in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

## **14. PERMIT TERM**

This permit shall expire on the date specified on the cover page of this permit, which shall not be later than the date

five (5) years after issuance of this permit.

Permit expiration terminates the Permittee's right to operate the facility's emission units, control equipment or associated equipment covered by this permit, unless a timely and complete renewal application is submitted at least 6 months before the expiration date.

## **15. PERMIT RENEWAL**

Upon MassDEP's receipt of a complete and timely application for renewal, this facility may continue to operate subject to final action by the MassDEP on the renewal application.

In the event the MassDEP has not taken final action on the Operating Permit renewal application prior to this permit's expiration date, this permit shall remain in effect until the MassDEP takes final action on the renewal application, provided that a timely and complete renewal application has been submitted in accordance with 310 CMR 7.00: Appendix C(13).

## **16. REOPENING FOR CAUSE**

This permit may be modified, revoked, reopened, and reissued, or terminated for cause by the MassDEP and/or EPA. The responsible official of the facility may request that the MassDEP terminate the facility's Operating Permit for cause. The MassDEP will reopen and amend this permit in accordance with the conditions and procedures under 310 CMR 7.00: Appendix C(14).

The filing of a request by the Permittee for an Operating Permit revision, revocation and reissuance, or termination, or a notification of a planned change or anticipated noncompliance does not stay any Operating Permit condition.

## **17. DUTY TO PROVIDE INFORMATION**

Upon the MassDEP's written request, the Permittee shall furnish, within a reasonable time, any information necessary for determining whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the Permittee shall furnish to the MassDEP copies of records that the Permittee is required to retain by this permit.

## **18. DUTY TO SUPPLEMENT**

The Permittee, upon becoming aware that any relevant facts were omitted or that incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information. The Permittee shall also provide additional information as necessary to address any requirements that become applicable to the facility after the date a complete renewal application was submitted but prior to release of a proposed permit.

The Permittee shall promptly, on discovery, report to the MassDEP a material error or omission in any records, reports, plans, or other documents previously provided to the MassDEP.

## **19. TRANSFER OF OWNERSHIP OR OPERATION**

This permit is not transferable by the permittee unless done in accordance with 310 CMR 7.00: Appendix C(8)(a). A change in ownership or operation control is considered an administrative permit amendment if no other change in the permit is necessary and provided that a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between current and new Permittee, has been submitted to the MassDEP.

## **20. PROPERTY RIGHTS**

This permit does not convey any property rights of any sort, or any exclusive privilege.

## **21. INSPECTION AND ENTRY**

Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow authorized representatives of the MassDEP and EPA to perform the following, as per 310 CMR 7.00: Appendix C(3)(g)12:

- (a) enter upon the Permittee's premises where an operating permit source activity is located or emissions-related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- (d) Sample or monitor at reasonable times any substances or parameters for the purpose of assuring compliance with the operating permit or applicable requirements as per 310 CMR 7.00 Appendix C(3)(g)(12).

## **22. PERMIT AVAILABILITY**

The Permittee shall have available at the facility, at all times, a copy of the materials listed under 310 CMR 7.00: Appendix C(10)(e) and shall provide a copy of the permit, including any amendments or attachments thereto, upon request by the MassDEP or EPA.

## **23. SEVERABILITY CLAUSE**

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstances is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

## **24. EMERGENCY CONDITIONS**

The Permittee shall be shielded from enforcement action brought for noncompliance with technology based<sup>1</sup> emission limitations specified in this permit as a result of an emergency<sup>2</sup>. In order to use emergency as an affirmative defense to an action brought for noncompliance, the Permittee shall demonstrate the affirmative defense through properly signed,

---

<sup>1</sup> Technology based emission limits are those established on the basis of emission reductions achievable with various control measures or process changes (e.g., a new source performance standard) rather than those established to attain health based air quality standards.

<sup>2</sup> An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation would require immediate corrective action to restore normal operation, and that causes the source to exceed a technology based limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operations, operator error or decision to keep operating despite knowledge of any of these things.



contemporaneous operating logs, or other relevant evidence that:

- (a) an emergency occurred and that the Permittee can identify the cause(s) of the emergency;
- (b) the permitted facility was at the time being properly operated;
- (c) during the period of the emergency, the Permittee took all reasonable steps as expeditiously as possible, to minimize levels of emissions that exceeded the emissions standards, or other requirements in this permit; and
- (d) the Permittee submitted notice of the emergency to the MassDEP within two (2) business days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emission, and corrective actions taken.

If an emergency episode requires immediate notification to the Division of Hazardous Waste/Emergency Response and the Emergency Response Planning Council, immediate notification to the appropriate parties should be made as required by law.

## **25. PERMIT DEVIATION**

Deviations are instances where any permit condition is violated and not reported as an emergency pursuant to section 24 of this permit. Reporting a permit deviation is not an affirmative defense for action brought for noncompliance. Any reporting requirements listed in Table 6 of this Operating Permit shall supercede the following deviation reporting requirements, if applicable.

The Permittee shall report to the MassDEP's Regional Bureau of Waste Prevention the following deviations from permit requirements, by telephone or fax, within three (3) days of discovery of such deviation:

- Unpermitted pollutant releases, excess emissions or opacity exceedances measured directly by CEMS/COMS, by EPA reference methods or by other credible evidence, which are ten percent (10%) or more above the emission limit.
- Exceedances of parameter limits established by your Operating Permit or other approvals, where the parameter limit is identified by the permit or approval as surrogate for an emission limit.
- Exceedances of permit operational limitations directly correlated to excess emissions.
- Failure to capture valid emissions or opacity monitoring data or to maintain monitoring equipment as required by statutes, regulations, your Operating Permit, or other approvals.
- Failure to perform QA/QC measures as required by your Operating Permit or other approvals for instruments that directly monitor compliance.

For all other deviations, three (3) day notification is waived and is satisfied by the documentation required in the subsequent Semi-Annual Monitoring Summary and Certification. Instructions and forms for reporting deviations are found in the Massachusetts Department of Environmental Protection Bureau of Waste Prevention Air Operating Permit Reporting Kit, which is available to the permittee via the MassDEP's website, <http://www.mass.gov/dep/air/approvals/aqforms.htm#op>. This report shall include the deviation, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and the corrective actions or preventative measures taken.

Deviations that were reported by telephone or fax within 3 days of discovery, said deviations shall also be submitted in writing via the Operating Permit Deviation Report to the regional Bureau of Waste Prevention within ten (10) days of discovery. For deviations, which do not require 3 day verbal notification, follow-up reporting requirements are satisfied by the documentation required in the aforementioned Semi-Annual Monitoring Summary and Certification.

## **26. OPERATIONAL FLEXIBILITY**

The Permittee is allowed to make changes at the facility consistent with 42 U.S.C. §7401, §502(b)(10) not specifically prohibited by the permit and in compliance with all applicable requirements provided the permittee gives the EPA and the MassDEP written notice fifteen days prior to said change; notification is not required for exempt activities listed at 310 CMR 7.00: Appendix C(5)(h) and (i). The notice shall comply with the requirements stated at 310 CMR 7.00: Appendix C(7)(a) and will be appended to the facility's permit. The permit shield allowed for at 310 CMR 7.00: Appendix C(12) shall not apply to these changes.

## **27. MODIFICATIONS**

- (a) Administrative Amendments - The Permittee may make changes at the facility which are considered administrative amendments pursuant to 310 CMR 7.00: Appendix C(8)(a)1., provided they comply with the requirements established at 310 CMR 7.00: Appendix C(8)(b).
- (b) Minor Modifications - The Permittee may make changes at the facility which are considered minor modifications pursuant to 310 CMR 7.00: Appendix C(8)(a)2., provided they comply with the requirements established at 310 CMR 7.00: Appendix C(8)(d).
- (c) Significant Modifications - The Permittee may make changes at the facility which are considered significant modifications pursuant to 310 CMR 7.00: Appendix C(8)(a)3., provided they comply with the requirements established at 310 CMR 7.00: Appendix C(8)(c).
- (d) No permit revision shall be required, under any approved economic incentives program, marketable permits program, emission trading program and other similar programs or processes, for changes that are provided in this operating permit. A revision to the permit is not required for increases in emissions that are authorized by allowances acquired pursuant to the Acid Rain Program under Title IV of the Act, provided that such increases do not require an operating permit revision under any other applicable requirement.

## **28. OZONE DEPLETING SUBSTANCES**

This section contains air pollution control requirements that are applicable to this facility, and the United States Environmental Protection Agency enforces these requirements.

- A. The Permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
  - 1) All containers containing a class I or class II substance that is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to 40 CFR 82.106.
  - 2) The placement of the required warning statement must comply with the requirements of 40 CFR 82.108.
  - 3) The form of the label bearing the required warning statement must comply with the requirements of 40 CFR 82.110.
  - 4) No person may modify, remove or interfere with the required warning statement except as

described in 40 CFR 82.112.

- B. The Permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVAC) in Subpart B:
- 1) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices of 40 CFR 82.156.
  - 2) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment of 40 CFR 82.158.
  - 3) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.
  - 4) Persons disposing of small appliances, MVACs and MVAC-like appliances (as defined in 40 CFR 82.152) must comply with recordkeeping requirements of 40 CFR 82.166.
  - 5) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair equipment requirements of 40 CFR 82.156.
  - 6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
- C. If the Permittee manufactures, transforms, imports or exports a class I or class II substance, the Permittee is subject to all the requirements as specified in 40 CFR Part 82, Subpart A, "Production and Consumption Controls".
- D. If the Permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, "Servicing of Motor Vehicle Air Conditioners". The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo or system used on passenger buses using HCFC-22 refrigerant.
- E. The Permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR Part 82, Subpart G, "Significant New Alternatives Policy Program".

## **29. PREVENTION OF ACCIDENTAL RELEASES**

This section contains air pollution control requirements that are applicable to this facility, and the United States Environmental Protection Agency enforces these requirements.

Your facility is subject to the requirements of the General Duty Clause, under 112(r)(1) of the CAA Amendments of 1990. This clause specifies that owners or operators of stationary sources producing, processing, handling or storing a chemical in any quantity listed in 40 CFR Part 68 or any other extremely hazardous substance have a general duty to identify hazards associated with these substances and to design, operate and maintain a safe facility, in order to prevent releases and to minimize the consequences of accidental releases which may occur.

## ***APPEAL CONDITIONS FOR OPERATING PERMIT***

This Permit is an action of MassDEP. If you are aggrieved by this action, you may request an adjudicatory hearing within 21 days of issuance of this Permit. In addition, any person who participates in any public participation process required by the Federal Clean Air Act, 42 U.S.C. §7401, §502(b)(6) or under 310 CMR 7.00: Appendix C(6), with respect to MassDEP's final action on Operating Permits governing air emissions, and who has standing to sue with respect to the matter pursuant to federal constitutional law, may initiate an adjudicatory hearing pursuant to Chapter 30A, and may obtain judicial review, pursuant to Chapter 30A, of a final decision therein.

If an adjudicatory hearing is requested, the facility must continue to comply with all existing federal and state applicable requirements to which the facility is currently subject, until a final decision is issued in the case or the appeal is withdrawn. During this period, the Application shield shall remain in effect, and the facility shall not be in violation of the Act for operating without a Permit.

Under 310 CMR 1.01(6)(b), the request must state clearly and concisely the facts which are the grounds for the request, and the relief sought. Additionally, the request must state why the Permit is not consistent with applicable laws and regulations.

The hearing request along with a valid check payable to The Commonwealth of Massachusetts in the amount of one hundred dollars (\$100.00) must be mailed to:

The Commonwealth of Massachusetts  
Department of Environmental Protection (MassDEP)  
P.O. Box 4062  
Boston, MA 02211

The request will be dismissed if the filing fee is not paid unless the appellant is exempt or granted a waiver as described below.

The filing fee is not required if the appellant is a city or town (or municipal agency) county, or district of the Commonwealth of Massachusetts, or a municipal housing authority.

MassDEP may waive the adjudicatory hearing-filing fee for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file, together with the hearing request as provided above, an affidavit setting forth the facts believed to support the claim of undue financial hardship.